

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 63060529  
PUBLICATION DATE : 16-03-88

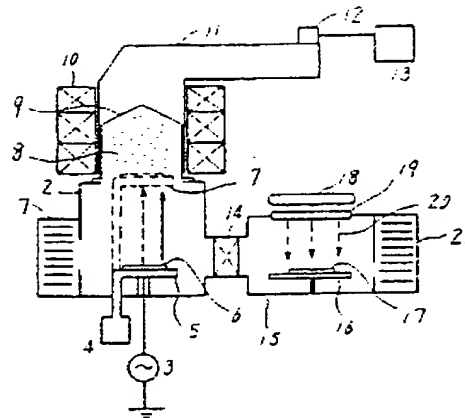
APPLICATION DATE : 01-09-86  
APPLICATION NUMBER : 61203658

APPLICANT : HITACHI LTD;

INVENTOR : OKUDAIRA SADAYUKI;

INT.CL. : H01L 21/302

TITLE : PLASMA PROCESSING METHOD



ABSTRACT : PURPOSE: To efficiently reduce the temperature of a sample by forming a gas absorbing layer or a thin film on a cooled sample before placing the sample on a sample tray.

CONSTITUTION: A sample is conveyed from a cassette loading chamber 1 to an etching chamber 2, and moved to a sample tray 5 formed with an absorbing layer. The tray 5 is held at a low temperature by a cooler 4, and a high frequency power is applied from a high frequency power source 3 at the time of etching. The tray 5 is moved upward in the etching process, disposed at a position 7 near a plasma 8, a microwave plasma is generated by applying a microwave from a magnetron oscillation tube 12 to gas introduced into a quartz discharging tube 9 in a magnetic field from a magnet 10, and maintained to etch the sample 5. After light is irradiated for about 2 min, it is contained in a cassette chamber 21 and removed into an atmosphere. Then, a problem of dew does not occur at all. Thus, the efficiency of cooling the sample is improved, the sample is cooled to a low temperature in a short time, thereby largely shortening the processing time.

COPYRIGHT: (C)1988,JPO&Japio